DIESEL GENERATOR SET 50Hz/1500 rpm

# VGP165M 50Hz POWERED BY PERKINS SERIES





# TECHNICAL SPECIFICATIONS

#### DIESEL GENERATING SET 400/230V-50Hz-3Phase

Model	VGP165M	
Power(ESP)	kVA/kw	165/132
Power(PRP)	kVA/kw	150/120
Starter Voltage	V	12
Rated Current	A	239
Rated rotation speed	r/min	1500
Power Factor		0.8
<b>Fuel Consumption</b>	Litre/hour	45
Fuel Tank Capacity	Litre	Open Type: 277L / Silent Type: 370L
Noise level	dB(A)@7m	Silent Type: 76±2

## WEIGHT AND DIMENSIONS

GEN-Set	Dimension ( L*W*H )	Weight
Open Type	2450mm*950mm*1535mm	1495 Kg
Silent Type	3436mm*1106mm*1968mm	2074 Kg

### **STANDARDS:**

Genset: GB/T2820—2009,ISO8528

Alternator: MECC ALTE, ECP34 2L4A
Diesel Engine: PERKINS, 1106A-70TAG2

**Standby Power:** Continues running at variable load for duration of an emergency. No overload is permitted on these ratings.

**Prime Power:** Continues running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period.

# **Perkins**







### **CONFIGURATION:**

**Standard:** Engine, alternator, cooling system, Base frame (excluding fuel tank), shock absorber, air inlet system, control box (including mains floating charge), plastic fan blades (when the engine and water tank do not bring).

Optional: Base frame (including fuel tank), water jacket heater, fuel water separator, fuel heater, fuel level sensor (only supporting underframe tank), switch box (with switch), power switch, the water level sensor, motor anti condensation heater, automatic fueling system (only supporting base frame including fuel tank), battery frame.

Accessories: Silencer, bellow, exhaust silencing system accessories (with the matching engine), regular battery, starting cord assembly, data of gen-set, random tool (with the matching engine.



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# **ENGINE Specification**

Manufacturer: PERKINS		
Model	1106A-70TAG2	
Cylinder /Arrangement	6/ L	
Displacement	7.01L	
Bore and Stroke	105 mm × 135	
Compression ratio	17:1	
Max. stand by power at rated RPM	173.9KW	
Frequency regulation , steady state	≤5%	
Governor : type	Electrical	
Exhaust System		
Exhaust gas flow	31.3L/min	
Exhaust temperature	595°C	
Max back pressure	18kPa	
Fuel System		
Fuel consumption 100% (of the Prime Power)	45.8L/h	
Fuel consumption75% (of the Prime Power)	34,7 L / h	
Fuel consumption 50% (of the Prime Power)	23.1L/h	
Fuel consumption25% (of the Prime Power)	12.6L/h	
Oil system		
Total oil capacity w/filters	19 L	
Air intake		
Engine air flow	10.7L/min	
Coolant System		
Radiator & engine capacity	37.22 L	
Max water temperature	103°C	



Thermostat

- $\hfill\square$  Perkins engines with fast and reliable cold boost.
- ☐ Advanced technology on burning Combustion optimization, low fuel consumption and low noise, emission meets German TALuft standard.
- ☐ Reasonable coupling creates best compounding function, provides reliable and high-performance power products.

82-93°C

 $\hfill \square$  Integrated structure of generator with fuel tank and base frame and internal high-efficiency anti-vibration.

Note: All data sheets are for reference only and subject to change without prior notice.







# **ALTERNATOR Specification**

Manufacturer: MECC-ALTE		
Туре	ECP34 2L4A	
Number of phase power	3	
Factor (Cos Phi)	0.8	
Pole	4	
Bearing	1	
Coupling	Direct	
Exciter type	AREP	
Insulation : class , temperature rise	H/H	
Degree of protection	IP23	
AVR model	DSR	
Altitude	≤1000m	
Winding Pitch	2/3	
Winding Leads	6/12	

#### **FEATURES**

- Leading reality in the national scene, fortified by sixty years of experience in the electro mechanical field, Mecc Alte is today at its height in the world production of synchronous alternators.
- Committed daily to research, development and updating activities, Mecc Alte is a testimony to constant improvement in all areas from technology, organisation and quality with its ISO 9001 certification.

## **STANDARDS**

- Marine certifying institutions
   Korean Register of Shipping, American Bureau of Shipping,
   China Classification Society, Germanischer Lloyd, Nippon Kaiji
   Kyokai, Russian Maritime Register of Shipping.
- Product certifying institutions CSA International Underwriters Laboratories Istituto Marchio di Qualità

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# DATA SHEET

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# **Control Panel**

Model: AMF 20

### **AUTOMATIC MAINS FAILURE CONTROLLER**

InteliLite® controllers are equipped with a powerful graphic display. Icons, symbols and bar graphs for intuitive operation together with high functionality set new standards in gen-set control.

Special low temperature (IL-AMF 20-LT or IL-AMF 25-LT) version is also available, allowing the display to work up to -300C.



#### **KEY FEATURES**

- Current/voltage asymmetry

- Overcurrent/overload

3 phase AMF function

- Over-/under frequency

- Support of engines equipped with Electronic Control Unit (J1939 interface) Comprehensive diagnostic messages; SPN/FMI codes; KWP2000 support Automatic or manual start/stop of the gen-set Push buttons for simple control, lamp test Graphic back-lit LCD display 128x64 pixels 6 LED indicators Parameters adjustable via keyboard or PC Mains measurements (50/60 Hz): U1-U3, Hz Generator measurements (50/60 Hz): U1-U3, I1-I3, Hz, kW, kVAr, kWh Selectable protections alarm/shutdown 3 phase Generator protections - Over-/under voltage - Over-/under frequency
- Over-/under voltage Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface (AT-LINK CONV cable is necessary for IL-AMF 20)
- Modem communication support (IL-AMF 25 only)
- Dimensions 180x120 mm (front panel)
- Sealed to IP65

### **KEY BENEFITS**

- Less wiring and components
- Integrated solution
- Less engineering and programming
- Perfect price/performance ratio